

### Glass Passivated Bridge Rectifiers **KBP02A Series**

#### **FEATURES**

- Forward Current : 2A
- Reverse Voltage 600V, 800V
- · Ideal for printed circuit board
- Reliable low cost construction utilizing molded plastic technique
- The plastic material has UL flammability classification 94V-0

#### **MECHANICAL DATA**

· Polarity: As marked on body

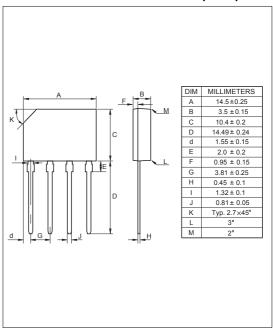
· Weight: 0.05 ounces, 1.52 grams

Mounted position : Any

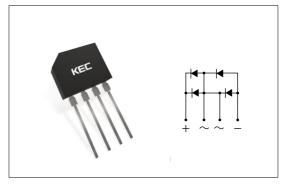
### ORDERING INFORMATION

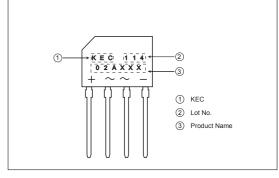
| Part Number | QTY per Tube | QTY Per Carton Box |
|-------------|--------------|--------------------|
| KBP02A60B   | 35 pcs       | 2,800 pcs          |
| KBP02A80B   | 35 pcs       | 2,800 pcs          |

#### PACKAGE DIMENSION (KBP)



#### **PIN CONFIGURATION**





**MARKING CODE** 

#### MARKING INFORMATION

| Part Number | Marking code |  |  |
|-------------|--------------|--|--|
| KBP02A60B   | 02A60B       |  |  |
| KBP02A80B   | 02A80B       |  |  |

### MAXIMUM RATING and ELECTRICAL CHARACTERISTICS

Ratings at 25 °C ambient temperature unless otherwise specified.

| Parameter   |                          | Symbols              | KBP02A60B  | KBP02A80B | Units            |
|---|--------------------------|----------------------|------------|-----------|------------------|
| Maximum Repetitive Peak Reverse Voltage                           |                          | $V_{RRM}$            | 600        | 800       | V                |
| Maximum RMS voltage   |                          | V <sub>RMS</sub>     | 420        | 560       | V                |
| Maximum DC Blocking Voltage                                       |                          | $V_{DC}$             | 600        | 800       | V                |
| Maximum Average Forward Rectified Current @T <sub>C</sub> = 100°C |                          | I <sub>(AV)</sub>    | 2          |           | Α                |
| Peak Forward Surge Current 8.3ms Single Half Sine Wave            |                          | I <sub>FSM</sub>     | 55         |           | Α                |
| Peak Forward Surge Current 1.0ms Single Half Sine Wave            |                          | I <sub>FSM</sub>     | 110        |           | А                |
| Maximum Forward Voltage at 2.0A DC                                |                          | V <sub>F</sub>       | 1.1        |           | V                |
| Maximum DC Reverse Current at Rated DC Blocking Voltage           | @T <sub>J</sub> = 25 °C  | I <sub>R</sub>       | 5<br>500   |           | μА               |
|   | @T <sub>J</sub> = 125 °C |                      |            |           |                  |
| l²t Rating for fusing (3ms≤t≤8.3ms)                               |                          | l²t                  | 12.55      |           | A <sup>2</sup> S |
| Typical Junction Capacitance per Element ( Note1 )                |                          | C <sub>j</sub>       | 25         |           | pF               |
| Typical Thermal Resistance(Note2)                                 |                          | Rθ <sub>JA</sub>     | 40         |           |                  |
|   |                          | Rθ <sub>JC</sub>     | 1          | 0         | °C/W             |
|   |                          | $R\theta_{JL}$       | 1          | 18        |                  |
| Operating and Storage Temperature Range                           |                          | Tj, T <sub>stg</sub> | -55 ~ +150 |           | °C               |

Note: 1. Measured at 1MHz and applied reverse voltage of 4V D.C.

<sup>2.</sup> Thermal Resistance Junction to Case, Lead and Ambient.

Fig.1 Forward Current Derating Curve

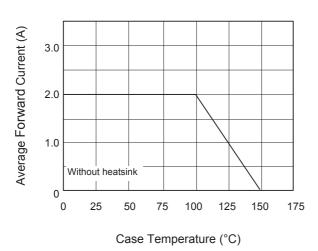


Fig.3 Typical Forward Characteristics

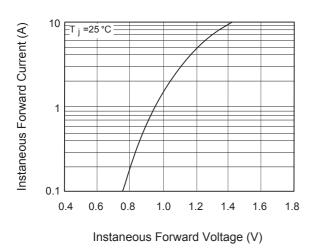
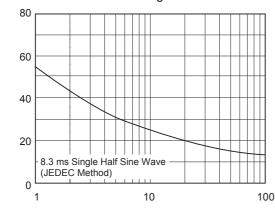
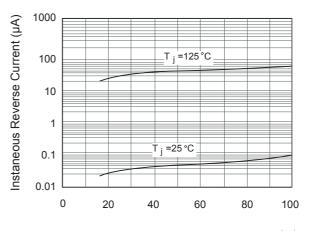


Fig.5 Maximum Non-Repetitive Peak Forward Surage Current



Number of Cycles at 60Hz

Fig.2 Typical Instaneous Reverse Characteristics



Percent of Rated Peak Reverse Voltage (%)

Fig.4 Typical Junction Capacitance

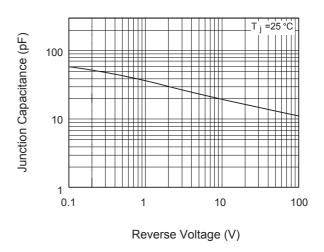
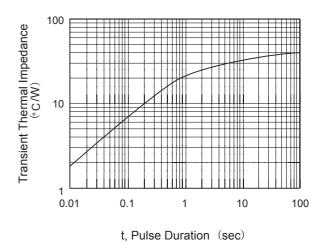
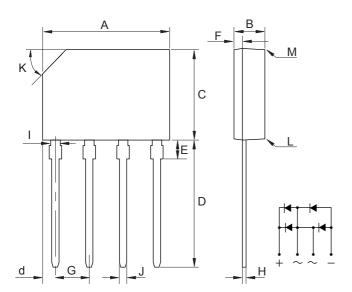


Fig.6 Typical Transient Thermal Impedance



Peak Forward Surage Current (A)

### PACKAGE DIMENSION (KBP)



| DIM | MILLIMETERS     |
|-----|-----------------|
| Α   | 14.5±0.25       |
| В   | $3.5 \pm 0.15$  |
| С   | $10.4 \pm 0.2$  |
| D   | 14.49 ± 0.24    |
| d   | 1.55 ± 0.15     |
| E   | $2.0 \pm 0.2$   |
| F   | $0.95 \pm 0.15$ |
| G   | $3.81 \pm 0.25$ |
| Н   | $0.45 \pm 0.1$  |
|     | $1.32 \pm 0.1$  |
| J   | $0.81 \pm 0.05$ |
| K   | Typ. 2.7×45°    |
| L   | 3°              |
| М   | 2°              |

### PRECAUTION ON USING KEC PRODUCTS

- 1. The products described in this data are intended to be used in general-purpose electronic equipment (Office equipment, telecommunication equipment, measuring equipment, home appliances)
- 2. When you intend to use these products with equipment or device which require an extremely high of reliability and special applications (such as automobile, air travel aerospace, transportation equipment, life support, system and safety devices) in which special quality and reliability and the failure or malfunction of products may directly jeopardize or harm the human body or damage to property and any application other than the standard application intended, please be sure to consult with our sales representative in advance.
- 3. On designing your application, please use product within the ranges guaranteed by KEC for maximum rating, operating supply voltage range, heat radiation characteristics and other characteristics. User shall be responsible for failure or damage when used beyond the guaranteed ranges.
- 4. The technical information described in this data is limited to showing representative characteristics and applied circuit examples of the products and it does not constitute the warranting of industrial property, the granting of relative rights, or the granting of any license.
- 5. What are described in the data may be changed without any prior notice to reflect new technical development. Please confirm that you have received the latest product standards or specification before final design, purchase or use.
- 6. Although KEC is continuously working to improve product reliability and quality, semiconductors can break down and malfunction due to various factors. Therefore, in order to prevent personal injury or fire arising from failure, please take safety measures such as complying with the derating characteristics, implementing redundant and fire prevention designs, and utilizing backups and fail-safe procedures. KEC shall have no responsibility for any damages arising out of the use of our Products beyond the rating specified by KEC.

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